



APPLICATION FORM
Humboldt County Planning and Building Department
 Current Planning Division 3015 H Street Eureka, CA 95501-4484
 Phone (707) 445-7541 Fax (707) 268-3792



INSTRUCTIONS:

1. Applicant/Agent complete Sections I, II and III below.
2. It is recommended that the Applicant/Agent schedule an Application Assistance meeting with the Assigned Planner. Meeting with the Assigned Planner will answer questions regarding application submittal requirements and help avoid processing delays. A small fee is required for this meeting.
3. Applicant/Agent needs to submit all items marked on the reverse side of this form.

SECTION I

APPLICANT (Project will be processed under Business name, if applicable.)

Business Name: Friends of Ferndale for a Liveable Community
 Contact Person: Jennifer Raymond
 Mailing Address: P.O. Box 777
 City, St, Zip: Ferndale, CA 95536
 Telephone: 707-442-1426 Fax: 707-497-3497
 Email: vegicook@gmail.com

AGENT (Communications from Department will be directed to agent)

Business Name: RWG Law
 Contact Person: Nicholas Ghirelli
 Mailing Address: 350 South Grand Avenue, 37th Floor
 City, St, Zip: Los Angeles, CA 90071
 Telephone: 213-626-8484 Fax: 213-626-0078
 Email: nghirelli@rwglaw.com

OWNER(S) OF RECORD (If different from applicant)

Owner's Name: _____
 Mailing Address: _____
 City, St, Zip: _____
 Telephone: _____ Fax: _____

Owner's Name: _____
 Mailing Address: _____
 City, St, Zip: _____
 Telephone: _____ Fax: _____

LOCATION OF PROJECT

Site Address: 1250 5th St. Ferndale, CA 95536
 Community Area: Humboldt County Fairgrounds

Assessor's Parcel No(s): 030-021-003-000
 Parcel Size (acres or sq. ft.): +/- 60.5 acres

Is the proposed building or structure designed to be used for designing, producing, launching, maintaining, or storing nuclear weapons or the components of nuclear weapons? YES NO

SECTION II

PROJECT DESCRIPTION

Describe the proposed project (attach additional sheets as necessary): An appeal of the Planning Commission's decision to approve Modification to Conditional Use Permit Case Number PLN-2022-17561 (filed 12/29/2021 by the Humboldt County Fair Association).

The project includes a modification of the Conditional Use Permit for motorcycle racing at the Humboldt County Fairgrounds by raising the instantaneous noise limit from 90 decibels to 99 decibels during motorcycle racing events at the fairgrounds. The decision of the Planning Commission to approve the modified CUP and adopt a supplemental MND violated CEQA because a fair argument can be made that the project will cause a significant environmental impact, particularly relating to noise, and therefore an EIR was required to be prepared. (see attached letter). Furthermore, the Planning Commission's findings were not supported by substantial evidence. For these reasons, the Planning Commission's decision was made in error and constituted an abuse of discretion.

SECTION III

OWNER'S AUTHORIZATION & ACKNOWLEDGEMENT

I hereby authorize the County of Humboldt to process this application for a development permit and further authorize the County of Humboldt and employees of the California Department of Fish and Wildlife to enter upon the property described above as reasonably necessary to evaluate the project. I also acknowledge that processing of applications that are **not** complete or do not contain truthful and accurate information will be delayed, and may result in denial or revocation of approvals.

Jennifer Raymond 6-3-2022
 Applicant's Signature Date

If the applicant is not the owner of record: I authorize the applicant/agent to file this application for a development permit and to represent me in all matters concerning the application.

 Owner of Record Signature Date

 Owner of Record Signature Date



Nicholas R. Ghirelli

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May 2, 2022

VIA ELECTRONIC MAIL

Steven Lazar
Senior Planner
County of Humboldt
3015 H Street
Eureka, California 95501
SLazar@co.humboldt.ca.us

Re: *Supplemental Initial Study and Proposed Mitigated Negative Declaration for Proposed Amendments to the Conditional Use Permit Authorizing Motorsports and Concert Events at the Humboldt County Fairgrounds*

Dear Mr. Lazar:

On behalf of Friends of Ferndale for a Livable Community (“Friends of Ferndale”), I write to comment on the Supplemental Initial Study and Proposed Mitigated Negative Declaration (Supplement IS/MND) for Proposed Amendments to the Conditional Use Permit Authorizing Motorsports and Concert Events at Humboldt County Fairgrounds (the “Fairgrounds”), dated April 1, 2022 . Based on our review, we believe that an Environmental Impact Report (EIR) is required for the proposed CUP modification to permit louder motorcycles at the Fairgrounds. A fair argument exists that the CUP modification will have a significant impact on the environment. The analysis of noise impacts in the Supplemental IS/MND is not supported by substantial evidence and violates the public disclosure requirements of the California Environmental Quality Act (CEQA). Further, the Supplemental IS/MND’s proposed mitigation measures do not mitigate expected environmental impacts caused by the Project, in violation of CEQA.

On August 25, 2020, this office submitted a letter on behalf of Friends of Ferndale commenting on the original IS/MND. Friends of Ferndale continues to believe that the original IS/MND and current CUP were flawed for the reasons set forth in that letter. That letter is attached hereto as Exhibit A hereto and incorporated herein by reference.

Friends of Ferndale is especially concerned about the noise impact caused by the enhanced motorcycle noise limit of 99 dBA, from the current CUP limit of 90 dBA. This is because of the Fairgrounds' proximity to the adjacent high school and nearby residential uses. It was clear from the original IS/MND's noise impact studies that the noise generated by both motorsport and concert events will be unacceptable, even with the proposed mitigation, and thus exceed the relevant thresholds of significance. Now, the proposed motorcycle noise is expected to be even louder, further exceeding the thresholds of significance, which triggers the preparation of an EIR.

The IS/MND discloses that it is "concerned with *adherence* to the Humboldt County General Plan and the noise limits set by Table 13-C."¹ According to the Supplemental IS/MND, the relevant limit is 60 dB, which is the upper limit of normally acceptable regularly-occurring noise levels and 65 dBA for short-term noise sources in residential areas.² While the Supplemental IS/MND does not clearly state which of these thresholds is applicable to its analysis (itself a CEQA error), the louder motorcycle noise would exceed either of these thresholds. As the Supplemental IS/MND plainly states, flat track racing events will result in noise levels reaching 85.6 dB at Arlington Avenue and 85.9 dB at Highway 211.³ Of course, these limits were based on modeling conducted for the original IS/MND and did not take into account the louder motorcycles requested here. That noise study found that noise generated by motorsport events could greatly exceed those thresholds, in some cases by over 30 decibels.

The Supplemental IS/MND attempts to justify the 9 dB increase in the noise limit because the 90 dB instantaneous limit is not "feasible." This is not an acceptable excuse for easing a mitigation measure in the context of a mitigated negative declaration. Such reasoning necessarily assumes there is a significant impact that cannot be mitigated to a less than significant level. If the mitigation measure previously determined necessary to reduce the motorcycle noise impact to a less than significant level is no longer feasible, and louder noise must be justified, then an EIR must be prepared to fully analyze the greater significant noise impact.

Finally, the proposed additional mitigation measures involving sound barriers and acoustical treatment of the grandstands are not based on substantial evidence. The flawed July 13, 2021 technical memorandum attached to the Supplemental IS/MND did not analyze whether or to what extent the proposed mitigation would reduce noise. Indeed, the technical memorandum doesn't consider the effects of motorcycle noise at the Fairgrounds or anywhere in Ferndale. It

¹ Supplemental IS/MND, Section 3.2.1, pg. 14.

² Supplemental IS/MND, Section 3.2.1, pg. 14.

³ Supplemental IS/MND, Section 3.2.1, pg. 15.

was based on a single hypothetical motorcycle from nearly four years ago, without considering the noise generated by actual racing conditions with upwards of 18 motorcycles using new, louder technology.

Once again, Friends of Ferndale provides the “Review of Noise Impact Study for Humboldt County Fairgrounds” attached to our August 25, 2020 letter (the “Noise Review”) and prepared by Noise Monitoring Services. The Noise Review demonstrates that the noise studies relied upon in the original IS/MND and now the Supplemental IS/MND do not fully account for the full range of noise generated by the events and, furthermore, the mitigation measures are inadequate to reduce noise levels below the applicable thresholds of significance. The Noise Review’s expert opinion provided by the Noise Review provides substantial evidence that the proposed Project will have a significant and unmitigable noise impact.

“CEQA requires the preparation of an EIR whenever substantial evidence supports a fair argument that a [project] will cause potentially significant adverse environmental impacts.”⁴ California courts view the “fair argument” as a very low threshold for requiring the preparation of an EIR.⁵ Based on the foregoing, a fair argument exists that the enhanced motorcycle noise will have a significant noise impact. Only after a full environmental review is completed through an EIR will the County have sufficient information to determine whether it can make the findings necessary to approve the proposed CUP modification.

Friends of Ferndale reserves its right to submit additional comments as deemed appropriate in advance of the appeal hearing.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,



Nicholas R. Ghirelli

Attachment: August 25, 2020 Letter, including Noise Monitoring Services Review of Noise Impact Study for Humboldt County Fairgrounds

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⁴ *Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, 127 Cal.App.4th 1544, 1558 (2005).

⁵ *Id.*



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August 25, 2020

VIA ELECTRONIC MAIL & U. S. MAIL

Steven Lazar
Senior Planner
County of Humboldt
3015 H Street
Eureka, California 95501
SLazar@co.humboldt.ca.us

Re: Initial Study and Proposed Mitigated Negative Declaration for Motorsports
and Concert Events at the Humboldt County Fairgrounds

Dear Mr. Lazar:

This letter is submitted on behalf of Friends of Ferndale for a Livable Community (“Friends of Ferndale”), a nonprofit organization dedicated to preserving the quality of life for Ferndale residents. We have reviewed the Initial Study and Proposed Mitigated Negative Declaration (IS/MND) for Proposed Motorsports and Concert Events at Humboldt County Fairgrounds (the “Fairgrounds”), dated July 24, 2020 . Based on our review, we believe that an Environmental Impact Report (EIR) is required for this project because a fair argument exists that the project will have significant impact on the environment in several impact areas. Moreover, the analysis of several impact areas is not supported by substantial evidence and violates the public disclosure requirements of the California Environmental Quality Act (CEQA). The following comments on the IS/MND documentation support our conclusion that an EIR is required for this project and identify defects in the IS/MND’s analysis and conclusions.

Project Description

“Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal’s benefit against its environmental cost, consider mitigation measures, assess the advantages of terminating the proposal . . . and weigh other alternatives in the balance. An accurate, stable and finite project description is the sine qua non of an

informative and legally sufficient EIR.”¹ The same accuracy must be provided in the project description for a mitigated negative declaration.² In this case, Section 2.3 of the IS/MND does not provide sufficient information to allow the public to fully evaluate the project’s environmental impacts.

The fourteen total events identified in the project description—four motorsports and ten concerts—are apparently inclusive of all such events to be held at the Fairgrounds in a given year. The project description notes that events would be “pre-scheduled between March and October, excepting the six-week period (August 1st through September 15th)” when events associated with the Humboldt County Fair are occurring. However, the IS/MND does not indicate whether additional concerts or similar events would be held during the County Fair. The table identifying prior concerts held at the Fairgrounds on page 7 of the IS/MND identifies several concerts that have been held during the period of time when the County Fair occurs (August-September). Most of these events occurred after CEQA was adopted in 1973. Therefore, unless similar events occurring at the Fairground during the County Fair were studied as part of a prior environmental document under CEQA, then they must also be identified in the project description and analyzed as part of this project. This analysis must be undertaken to avoid a situation where “piecemeal approval of several projects with related impacts could lead to severe environmental harm.”³ They must also be considered as part of an adequate cumulative impacts analysis.

Furthermore, the length of each of the proposed motorsport and music “events” is not fully defined. While the project description identifies an event’s maximum hours of operation on any given day, it does not address the days of the week when events will be held or whether an event may occur over multiple days. If weekday events are anticipated, then the impacts would be especially borne by students of Ferndale High School given the school’s proximity to the Fairgrounds. Could events occur on weekdays when school is in session or while extra-curricular events are taking place after the school day has ended? Furthermore, it is not clear whether a single music event might encompass a multi-day festival or whether a motorsport event includes practices or qualification races. Could use of the track for casual daytime or nighttime motorcycle practices be permitted when leading up to a scheduled race? The protracted use of the Fairgrounds for these uses must be explained in the project description because they will exacerbate the potential impacts described below.

¹ *County of Inyo v City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.

² *City of Redlands v. Cty. of San Bernardino*, 96 Cal.App.4th 398, 406 (2002) (“The negative declaration is inappropriate where the agency has failed . . . to provide an accurate project description . . . and undertake an adequate environmental analysis.”)

³ *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus*, 27 Cal.App4th 713, 720 (1994).

The IS/MND identifies the following types of motorsports to be permitted as part of the project: “Tractor Pulls, 4x4 Truck events, Go Carts, Monster Trucks, and Motorcycle Racing.”⁴ Yet, only motorcycle racing is discussed in any detail. The other motorsports events must contain a description of the operational aspects in order for the project description to be complete. This information is critical to fully inform the public about the expected impacts of the project under CEQA.

Finally, missing from the description of the proposed music events is the stage configuration. The only information about the stage location is that it will be “set up in the interior of the race track on an installed temporary stage placed directly in front of the Grand Stands.”⁵ The IS/MND goes on to say that the stage and event configuration will depend on the type of event. The description does not inform the public where the stage and speakers will be directed, and if they will be directed toward sensitive receptors. Unfortunately, as discussed below, the project’s Noise Impact Study Addendum provides no clarification on this issue.

As a result, the project description is not “accurate, stable, and finite,” as required by CEQA.

Aesthetics

The aesthetic impact analysis, and particularly the discussion of light and glare, suffers from fatal flaws and therefore underestimates the impact of light and glare on the residential community surrounding the Fairgrounds. The IS/MND acknowledges that “temporary lighting is commonly incorporated into music events for the purpose of aesthetics and/or stage illumination.”⁶ But no such acknowledgment is made for motorsports events, which, when held at night, necessarily require sufficient lighting in order to operate safely. The IS/MND does not attempt to describe the new light sources from motorsports events, including temporary lighting for staging areas and the lights affixed to the vehicles and motorcycles themselves. The IS/MND must fully account for these new, expected light sources.

Mitigation Measure AES-1 does not effectively mitigate the impact caused by temporary lighting. Mitigation Measure AES-1 states: “Temporary stage lighting used during events will be directed towards the ground and north of the stage at intensities low enough to prevent light spillage (illumination of adjacent parcels). To insure that all lighting conforms to this standard,

⁴ IS/MND, Section 2.3.1, pg. 8.

⁵ IS/MND, Section 2.3.2, pg. 8.

⁶ IS/MND, Section 3.2.1, pg. 13.

Humboldt County Fair Association staff shall review the temporary lighting design for each music event.” This mitigation measure suffers from three fatal flaws.

First, as discussed above, motorsports events may contribute to light spillage onto adjacent properties. Yet, Mitigation Measure AES-1 only applies to music events.

Second, the IS/MND’s description of the mitigation measure states that lighting must be at “intensities low enough to prevent the illumination of adjacent parcels.”⁷ Does this mean no light spillage onto adjacent parcels will occur? The IS/MND fails to quantify if, and how much, illumination will be tolerated at adjacent parcels and the reduction achieved by Mitigation Measure AES-1.

Finally, Mitigation Measure AES-1 provides no enforcement mechanism to ensure that lighting is directed toward the ground at intensities low enough to prevent the illumination of adjacent parcels. It merely requires the Humboldt County Fair Association to “review the temporary lighting design for each music event.” Neither the Fair Association nor the County will actually approve the lighting plan or verify that it effectively prevents light spillage. The Fair Association need only report to the County that it has “reviewed” temporary lighting. Therefore, Mitigation Measure AES-1 is not tied to a concrete plan of action, and the mitigation is not effective in mitigating the threat of light spillage caused by the project.

Air Quality

The IS/MND’s conclusion that the project will not expose sensitive receptors to substantial pollutant concentrations is fatally flawed because it is unsupported by substantial evidence. The IS/MND acknowledges that the Fairgrounds are bordered by sensitive receptors, such as Ferndale High School and several residential dwellings. Ferndale is an older community with over 37 percent of its population aged 60 and over,⁸ meaning that many residents are especially vulnerable to air quality impacts.

Yet, the IS/MND’s only support for its finding that the project will not impact sensitive receptors is a conclusory statement that emissions “are minor, infrequent, and limited in duration” and will “dissipate into the atmosphere before they could expose people working or residing in the

⁷ IS/MND, Section 3.2.1, pg. 13.

⁸ U.S. Census 2018 American Community Survey, Available at <https://data.census.gov/cedsci/table?q=ferndale%20california&tid=ACSST5Y2018.S0101&hidePreview=false>

area to substantial pollutants.”⁹ This emissions analysis fails to provide any quantification of the project’s impacts. Events could be occurring as much as twelve hours per day within roughly 100 feet of a school and roughly 500 feet of adjacent residences. Therefore, it is probable that adjacent sensitive receptors will be exposed to significant levels of vehicle related air quality pollutants, especially vehicle exhaust from motorsports events.

For similar reasons, the IS/MND’s analysis of project-related odors is woefully inadequate. It fails to account for odors emitted by generators, gasoline, and motorsports in close proximity to several sensitive receptors.

Furthermore, the IS/MND identifies only two potential sources of air quality impacts: automobile exhaust from event attendees and flat track motorcycles. The IS/MND does not account for emissions caused by concert events and, more significantly, emissions from monster trucks and other types of motorsports. Therefore, the IS/MND underestimates the amount of project-related emissions.

The North Coast Unified Air Quality Management District (the “Air District”) is in non-attainment for the 24-hour standard for particulate matter of 10 microns or less (PM₁₀). The IS/MND states that fugitive emissions as a result of vehicular traffic on unpaved roadways “are the largest source of particulate matter” within the Air District.¹⁰ In its analysis of Air Quality impacts, the IS/MND acknowledges that the Air District “has not formally adopted significance thresholds” for the purpose of analyzing a project’s impact on PM₁₀.¹¹ Instead, according to the IS/MND, it utilizes the Best Available Control Technology emission rates listed in the Air District’s Rule 110. Rule 110 only applies to stationary sources. As a result, the IS/MND implicitly acknowledges that the project’s air quality impacts are not measured against any applicable threshold of significance. It simply concludes that the project is consistent with the Air District’s PM₁₀ attainment plan because the project does not involve the operation of stationary sources. This analysis is incomplete.

Air District Rule 104.C includes a standard applicable to general combustion sources that should be applied to the project. It prohibits “any person from discharging particulate matter into the atmosphere from any combustion source in excess of 0.46 grams per standard cubic meter . . . calculated to 12 percent carbon dioxide” and certain other limitations set forth in the Rule.¹² Absent further analysis to quantify project-related air quality emissions, the IS/MND’s

⁹ IS/MND, Section 3.2.3, pg. 17.

¹⁰ IS/MND, Section 3.2.3, pg. 16.

¹¹ IS/MND, Section 3.2.3, pg. 16.

¹² Air District Rule 104, Subsection C.1.

conclusion that the project will not have a significant impact on air quality is not supported by substantial evidence. In sum, the IS/MND's air quality analysis is insufficient, and the project has the potential to result in unmitigable cumulative air quality impacts.

Energy

The IS/MND's conclusory analysis of energy resources, particularly the wasteful, inefficient, or unnecessary consumption of energy resources, is deficient. It fails to acknowledge the substantial amount of fuel expected to be consumed during motorsports events and music events, let alone quantify the amount. That the Fairground currently has facilities capable of powering events is not a sufficient substitute for the critical evaluation of a project's energy consumption required by CEQA.

Greenhouse Gas Emissions

The IS/MND's analysis of greenhouse gas (GHG) emissions underestimates the range of sources of potential GHG emissions created by the project. In addition to passenger vehicles travelling to events, the IS/MND also states that flat track racing motorcycles would produce GHG emissions. But there are other sources of GHG emissions generated from trucks and other vehicles participating in the project's other motorsports events. In addition, we assume that gas-powered generators will be used as part of the temporary staging for music events. As a result, the IS/MND's analysis of GHG impacts is incomplete and not supported by substantial evidence.

Hazards and Hazardous Substances

The IS/MND summarily concludes that the project does not involve the emission or handling of hazardous materials and substances within one-quarter mile of an existing school, even though the Fairgrounds are located adjacent to Ferndale High School. The proposed motorsports events at the Fairgrounds, especially the monster truck events, will require the storage and handling of large quantities of gasoline. In some cases, high octane racing fuel may be used. Under provisions of California law, petroleum and oil products are considered hazardous substances.¹³ Therefore, the project has the potential to cause a significant and unavoidable impact involving the emission or handling of hazardous substances within one-quarter mile of an existing school. This constitutes a significant and unavoidable impact that must be fully evaluated in an EIR.

¹³ See, e.g., Code of Civil Procedure Section 726.5.

Land Use and Planning

As a preliminary matter, the MND asserts that “activities at the site are exempt from the city [of Ferndale]’s zoning and land use regulations.”¹⁴ To support this conclusion, the MND cites to the Third District Court of Appeal’s opinion in *Lawler v. City of Redding*, but with no explanation as to how and why that case applies to the Project.¹⁵ The *Lawler* case recognizes the principle that, pursuant to Government Code Sections 53090 and 53091, cities and counties enjoy an intergovernmental immunity with respect to building and zoning regulations, including their respective general plans.¹⁶ In the typical case, for example, a city zoning regulation would not apply to county-owned land within the city’s limits, and vice versa. But intergovernmental immunity is not unlimited and should not constrain the analysis of a project’s environmental impacts under CEQA.

Humboldt County may only confer its immunity from City zoning regulations via a lease to a private party, such as the Humboldt County Fair Association or an event promoter, for the purpose of conducting a county fair and related activities. The California Attorney General has concluded that a county’s immunity does not extend to purely private uses.¹⁷ This is especially true if the purpose of the proposed project is merely to generate revenue for the Association or a concert promoter. In this case, the specific purpose of this project is to permit motorsport and concert events outside of the six-week period in August and September when the Humboldt County Fair occurs.

As a result, the Humboldt County Fair Association bears the burden of proving that its use of the Fairgrounds for motorsport and concert events—outside of the County Fair dates—qualifies for the County’s immunity from City building and zoning regulations. The IS/MND provides no evidence to support its conclusion that the City of Ferndale’s zoning regulations do not apply to the proposed project.

Nevertheless, the IS/MND endeavors to analyze the project’s consistency with the Ferndale General Plan Land Use Element and Zoning Ordinance, as it should. These planning documents constitute plans and regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project site is zoned as Public Facility (PF) in the Ferndale Zoning Ordinance, which permits “public fairgrounds and related uses.”¹⁸ However, the PF zone provides no indication that such “related uses” would include “concert venues” or “automobile

¹⁴ IS/MND, Section 2.2.2, pg. 6.

¹⁵ 7 Cal.App.4th 778 (1992).

¹⁶ *Id.* at 784.

¹⁷ 68 Cal.Ops.Atty.Gen. 114 (1985).

¹⁸ City of Ferndale Zoning Ordinance, Section 5.17.1.

racetracks.” Indeed, Section 7.05 of the Ferndale Zoning Ordinance specifically states that “no open-air . . . theater, automobile racetrack, . . . or similar assemblage of people and automobiles shall be permitted in any zone unless a use permit is first secured in each case.” Thus, even if these uses were related to the Fairgrounds, they are not permitted by right. The City recognizes that such assembly uses must be conditioned to mitigate their impacts through the issuance of a use permit. As a result, the IS/MND’s conclusion that the project is “consistent with the uses allowed in the public facility zoning designation as a public Fairgrounds related use” is incorrect. The project would cause a significant and unavoidable conflict with a land use plan intended to avoid or mitigate environmental effects.

Even assuming that the project is immune from the City’s building and zoning regulations, the IS/MND makes no attempt to determine whether the project is consistent with any applicable County land use plan policy or regulation, including its general plan and zoning ordinance adopted for the purpose of avoiding or mitigating environmental effects. Friends of Ferndale believes that the proposed project is inconsistent with the following goals and policies of the County general plan:

- Noise Element Goal N-G1. Excessive Noise. A quiet and healthful environment with limited disagreeable noise. N-G2. Incompatible Land Uses. Land uses arranged to reduce annoyance and complaints and minimize the exposure of community residents to excessive noise.
- Noise Element Policy N-P1. Minimize Noise from Stationary and Mobile Sources. Minimize stationary noise sources and noise emanating from temporary activities by applying appropriate standards for average and short-term noise levels during permit review and subsequent monitoring.
- Noise Policy N-P2. Guide to Land Use Planning. Evaluate current noise levels and mitigate projected noise levels when making community planning and zoning decisions to minimize the exposure of community residents to nuisance noise levels. Minimize vehicular and aircraft noise exposure by planning land uses compatible with transportation corridors and airports, and applying noise attenuation designs and construction standards. Avoid zoning patterns that permit people to “move to the nuisance” unless mitigated through project conditions or recorded notice.
- Noise Policy N-P4. Protection from Excessive Noise. Protect persons from existing or future excessive levels of noise which interfere with sleep, communication, relaxation, health or legally permitted use of property.

- Noise Standard N-S3. Environmental Review Process. For noise sensitive locations where noise contours do not exist, the environmental review process required by the California Environmental Quality Act shall be utilized to generate the required analysis and determine the appropriate mitigation per Plan and state standards. Future noise levels shall be predicted for a period of at least 10 years from the time of building permit application.
- Economic Development Goal ED-G4. Cooperation and Collaboration. Productive partnerships with cities, neighboring counties, and the private sector that build and enhance common assets and resolve common obstacles.
- Conservation and Open Space Goal CO-G6 Community Separation. Open space areas between urban development areas that separate and preserve unique identities of the county's cities and communities.
- Conservation and Open Space Policy CO-P6. Community Separation. Maintain separation of urbanized communities through appropriate land use designations and zoning density. Avoid merging urban development boundaries of adjacent communities.
- Conservation and Open Space Policy CO-P8. Planning for Recreational Needs within Communities. Policies addressing community recreational needs shall be prepared as part of planning efforts within each community. Implement park in-lieu fee programs in major communities.

This list of conflicting goals and policies of the County general plan is not intended to be exhaustive, but is illustrative of the careful consideration of the project's consistency with land use plans required under CEQA. A similar consistency analysis should be conducted for the City's general plan. In sum, the IS/MND's conclusion that the project is consistent with the City's and County's zoning and general plans is not supported by substantial evidence because all relevant policies and regulations have not been considered.

Noise

Friends of Ferndale is especially concerned about the noise impact caused by the fourteen proposed concert and motorsport events at the Fairgrounds, given the Fairgrounds' proximity to the adjacent high school and nearby residential uses. It is clear from the IS/MND's noise impact studies that the noise generated by both motorsport and concert events will be

normally unacceptable, even with the proposed mitigation.¹⁹ Due to the surrounding terrain in and around the Fairgrounds, we expect that noise will reflect off of the grandstands and nearby hills in a way that has not been fully addressed in the IS/MND. This finding alone calls for greater scrutiny and consideration of the project's noise impacts through the preparation of an EIR. Furthermore, there are serious questions about the effectiveness of the proposed mitigation measures. For example, are hay bales an effective form of sound mitigation and can they be erected at a sufficient scale to shield all sensitive receptors from loud nighttime music? If so, why is a similar physical barrier not proposed as mitigation for the motorsport events? At minimum, sound walls that achieve a high-level of noise attenuation should be considered as feasible mitigation measures. Late night event noise will have an especially significant impact on Ferndale's older population that calls for implementing all feasible mitigation.

As demonstrated by the attached "Review of Noise Impact Study for Humboldt County Fairgrounds" (the "Noise Review") prepared by Noise Monitoring Services, the IS/MND's noise studies do not fully account for the full range of noise generated by the events and, furthermore, the mitigation measures are inadequate to reduce noise levels below the thresholds of significance. The Noise Review finds that the IS/MND contains no analysis of the potential noise impacts caused by motorsport events, other than motorcycles. This is especially concerning with respect to monster trucks, given that the IS/MND's only attempt to quantify truck noise derives from a local newspaper story that found the sounds levels were between 80-95 decibels and well above the threshold of significance.²⁰ The Noise Review's expert opinion provided by the Noise Review provides substantial evidence that the proposed project will have a significant and potentially unmitigable noise impact.

Public Services

The IS/MND states that "[t]here is no reason to expect that authorizing use of the Fairgrounds for additional events would result in a significant increase in demand for public services."²¹ This conclusion is not supported by any evidence, and Friends of Ferndale believes that the project will very likely result in an increased demand for fire and police services. The mere fact that the Fairgrounds regularly hosts public gatherings during the annual County Fair does not excuse an evaluation of public resources required to host fourteen additional events with up to 10,000 attendees each. Security and police services are necessary to safely control crowds of that size. And, fire and paramedic resources must be on site in order to conduct safe motorsport events. As a result, the project has the potential to cause a significant effect on public services.

¹⁹ IS/MND, Section 3.2.13, pg. 30.

²⁰ IS/MND, Section 3.2.13, pg. 31.

²¹ IS/MND Section 3.2.15, pg. 36.

Transportation/Traffic

Under the recently revised CEQA Guidelines, a project's traffic impacts are now evaluated based on "vehicle miles travelled" or VMT attributable to a project.²² Lead agencies were required to begin implementing VMT methodologies as of July 1, 2020. However, as acknowledged in the IS/MND, Humboldt County has not yet adopted local guidance for evaluating VMT impacts. As a result, the IS/MND utilizes a qualitative analysis to measure project-related VMT.

Although the CEQA Guidelines authorize a qualitative analysis where an existing model or method is unavailable,²³ we do not believe this exception was intended to address situations where the only limitation is a lead agency's failure to adopt VMT thresholds by the July 1st deadline. Lead agencies across the state have adopted ad hoc quantitative methodologies in order to analyze traffic impacts pending final approval of their own VMT guidance. In this case, we see no reason why the project's VMT could not be fairly estimated through a quantitative model based on anticipated event attendance and estimated trips from population centers throughout the County.

Moreover, the qualitative analysis provided in the IS/MND is flawed. The analysis provides no baseline of existing conditions against which to measure the project's VMT increase. It merely provides one example of an equivalent facility within the County, the Redwood Acres facility in Eureka. The IS/MND does not compare the project against baseline conditions. Unless a qualitative analysis of VMT is conducted, the public and decision-makers will have no feasible way to estimate the increase in traffic caused by the additional fourteen events at the Fairgrounds.

Mandatory Findings of Significance

The project may have impacts that are individually limited but cumulatively considerable, meaning that incremental effects of the project are considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects. Fourteen additional music and motorsports events will be held at the Fairgrounds, in addition to other events held historically held at the Fairgrounds throughout the year and the annual County Fair in August and September. The IS/MND does not indicate whether those other events at the Fairgrounds have been evaluated under CEQA. An adequate analysis of cumulative impacts

²² 14 Cal. Code Regs. Section 15064.3.

²³ 14 Cal. Code Regs. Section 15064.3(c).

would consider the added impacts of this project in conjunction with the other Fairground events. The IS/MND fails to provide this required analysis. As such, the cumulative impacts analysis is flawed and an EIR should be prepared to analyze such impacts.

Conclusion

“CEQA requires the preparation of an EIR whenever substantial evidence supports a fair argument that a [project] will cause potentially significant adverse environmental impacts.”²⁴ California courts view the “fair argument” as a very low threshold for requiring the preparation of an EIR.²⁵

Based on the foregoing, a fair argument exists that the project will have significant effects on the environment in the areas of Aesthetics, Air Quality, GHG, Hazards and Hazardous Substances, Land Use and Planning, Noise, Public Services, and Transportation/Traffic. Friends of Ferndale has provided substantial evidence that the proposed project will have potentially significant impacts. We have also identified areas where the mitigations set forth in the IS/MND are insufficient to insure that all impacts will be mitigated to less than significant levels. Finally, we have identified areas where adequate analysis has not been completed, and must be completed in order to comply with CEQA’s policies regarding full disclosure of potential impacts. In sum, the expanded use of the Fairgrounds for music and motorsport events will most likely have a significant effect on the adjacent high school and residents living several hundred feet away.²⁶

Friends of Ferndale appreciates the opportunity to comment on the IS/MND because it views the fourteen events proposed by this project as a potential “gateway” to even more intensive uses of the Fairgrounds over time. Once a new baseline of fourteen events is established, the County may view each new additional event thereafter as a minor incremental change. From a CEQA perspective, this could mean that future additions are not subject to environmental review. Thus, it is important that this initial proposal be fully evaluated under CEQA so that the public has a complete picture of the impacts proposed by music and motorsport events at the Fairgrounds.

²⁴ *Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, 127 Cal.App.4th 1544, 1558 (2005).

²⁵ *Id.*

²⁶ *See, e.g., Lewis v. Seventeenth Dist. Agric. Assn.*, 165 Cal.App.3d 823 (1985) (finding a probable environmental effect from a racetrack located approximately one mile from residences).

Given the significance of this project, Friends of Ferndale respectfully requests a continuance of the Planning Commission's consideration of the conditional use permit and IS/MND so that it has sufficient time to carefully consider these comments and those submitted by others. To be sure, a mere reduction in the number of events should not be considered as a means to expeditiously mitigate impacts. Each proposed event will cause impacts that must be fully analyzed under CEQA.

Should the County wish to pursue this challenging project further, an EIR must be prepared in accordance with the public participation and public disclosure purposes underlying CEQA. If the County approves the conditional use permit and lease amendment with the Humboldt County Fair Association without preparing an EIR or significantly reducing the project's scope, then Friends of Ferndale will have no choice but to explore potential legal options to protect the neighboring community from this project's significant environmental impacts.

Friends of Ferndale reserves its right to submit additional comments as deemed appropriate.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,



Nicholas R. Ghirelli

Attachment: Noise Monitoring Services Review of Noise Impact Study for Humboldt County Fairgrounds

cc: Laurence S. Wiener, Richards, Watson & Gershon

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August 21, 2020

Friends of Ferndale for a Livable Community
C/O Nicholas Ghirelli, Richards, Watson & Gershon

Subject: Review of Noise Impact Study for Humboldt County Fairgrounds

Dear Mr. Ghirelli,

As requested, we have reviewed the *Noise Impact Study: Flat Track Racing at Humboldt County Fairgrounds* (August 2018) and the *Noise Study Addendum: Open Air Concerts Rev 2* (February 11, 2020), prepared by Whitchurch Engineering.

The noise impact study and its addendum concern the increased use of the venue for motorsports events and concerts, which are proposed to be held between March and October outside of the 6-week period in August and September associated with the Humboldt County Fair setup, operation, and cleanup. It is proposed that up to four motorsports events and ten concerts will be held at the venue each year excepting the six-week period August 1st through September 15th. The motorsports events will generally involve motorcycle racing. However, one of the motorsport events each year may include monster trucks and the mitigated negative declaration's project description identifies tractor pulls, 4x4 truck events, and go carts as other possible events.

The nearest sensitive receptors are residences within the City of Ferndale on Arlington Avenue, Main Street and Van Ness Avenue; a school on Main Street; and residences in unincorporated Humboldt County on Van Ness Avenue.

On reviewing the Whitchurch noise study, we conclude it contains several omissions and unrealistic assumptions that lead to misleading conclusions. Ambient noise levels have not been adequately documented. The declaration document contradicts the conclusions of the noise study, which indicates that noise levels will exceed the County's noise standards even when mitigation is incorporated. The study also contains estimates of interior noise levels that are based on unrealistic assumptions. These issues are explained in more detail below.

Noise Standards

Although the project site is located within the City of Ferndale, according to the noise study the noise standards that apply to the project are those contained in the Humboldt General Plan.

The Humboldt County General Plan contains noise standards that apply at interior and exterior areas of sensitive uses. For residential properties, an exterior Community Noise Equivalent Level (CNEL) of up to 60 dBA is considered 'normally acceptable'. CNEL's are calculated by averaging the sound level over a period of 24 hours after applying a correction to the evening and nighttime noise levels to account for the increased sensitivity to noise during these periods. The required interior CNEL in habitable rooms is 45 dBA.

The General Plan also contains short-term performance standards for various land uses. These performance standards are provided as maximum noise levels (Lmax). For residential uses, the Lmax may not exceed 65 dBA during the daytime hours (6 am to 10 pm) or 60 dBA during the nighttime hours (10 pm to 6 am). These short-term standards do not apply to temporary events in conformance with an approved Conditional Use Permit

When a discretionary project has the potential to generate noise levels in excess of the General Plan standards, a noise study is required to assure compliance with the standards. The noise study must include measured or modeled CNEL's and Lmax levels at property lines and receptor locations.

Ambient Sound Levels

As part of the noise study, Whitchurch obtained ambient measurements at one location during two 2-hour daytime periods. The measurements were obtained between 8 am and 10 am, and between 2 pm and 4 pm on Thursday, June 21 and Friday, June 22, 2018 at a location south of the site on Arlington Avenue. These measurements were used to estimate the ambient 24-hour CNEL at this location. The reports states that the primary sources of ambient noise were traffic on Arlington Avenue and residential noise sources, including mowers and power tools.

In our opinion, these measurements are inadequate to document existing ambient noise conditions in the project vicinity. A single measurement location cannot represent the range of noise levels that will be present in the area. This noise measurement was obtained at the residential property line closest to the road. It would be expected that properties on other roads in the area will be exposed to different ambient noise levels. Furthermore, the method used to estimate the CNEL from the short-term measurement is unlikely to lead to a reliable estimate. Whitchurch has estimated the ambient CNEL by assuming that the noise levels measured during the brief measurements would be constant throughout a 24-hour period. In reality, traffic noise is invariably much quieter during the nighttime hours. It is safe to assume that there would also be minimal noise from residential sources at night. These factors have not been accounted for in the study's CNEL estimates. The estimated ambient CNEL's have therefore almost certainly been significantly overestimated. It should also be noted that the measurements were obtained on weekdays, when traffic patterns may be different to weekend days when ambient noise may be lower.

In any environmental noise study, it is important to document the existing ambient noise levels. To properly document ambient sound levels, 24-hour sound measurements should be obtained at a selection of sensitive receptors in the area that are potentially impacted by the project. The measurement program

should include sensitive receptors in quieter areas located away from roads to ensure that worst-case (lowest) ambient noise levels are documented. The CNEL levels should be directly measured and should not be estimated from brief measurements. If the proposed events at the facility are to be held at weekends then the ambient measurements should be obtained on weekend days. Until these measurements are performed, it is not possible to comprehensively assess the project's noise impact by comparing motorsports and concert noise levels against the existing ambient noise levels.

Due to the frequency and ongoing nature of the proposed events, the project should be treated as one that will result in a permanent increase in ambient noise. In our experience, a common approach to minimizing the impact of this type of project is to limit the noise to below the existing ambient sound level. This approach ensures the project noise never increases the overall noise level by more than 3 dBA, which is considered a 'barely perceptible' increase.

Motorsport Event Assessment

The Whitchurch report includes estimates of interior and exterior noise levels at the nearby sensitive receptors during motorcycle racing events. The estimated noise levels are derived from actual motorcycle racing event noise at the track. No analysis is presented for monster truck events or other possible motorsports events. In our opinion the estimated unmitigated noise levels of 93.4 dBA L_{max} and 77.4 dBA CNEL at the receptors on Arlington Avenue, and 93.7 dBA L_{max} and 75.7 dBA CNEL at the receptors on Highway 211 have been calculated appropriately and are valid. The report includes estimated mitigated noise levels based on reduced hours of racing, reduced number of racers and mitigated motorcycle exhaust systems. It is noted that even with all possible mitigation measures (ie. the shortest racing duration, fewest number of racers and maximum exhaust mitigation) the estimated noise levels still exceed the County's general plan standard of 60 dBA CNEL at sensitive receptors. This undermines the 'Less than significant impact with mitigation incorporated' declaration in the Initial Study and Proposed Mitigated Negative Declaration. Mitigated L_{max} levels have not been fully addressed in the report (presumably to avoid having to declare a significant impact). However, based on the information contained in the report, it may be concluded that fully mitigated motorcycle racing events will produce noise levels up to 80 dBA at the nearest residences. They will therefore exceed County's exterior daytime L_{max} limit of 65 dBA by as much as 15 dBA. As previously stated, a comparison of the motorsport event noise levels against the existing ambient sound levels is absent from the noise study. The absence of any analysis for monster truck events and other motorsport events means that noise due to motorsport events has not been fully assessed.

Section 4.4.2 of the Whitchurch study states that interior noise levels at nearby residences will be between 14.4 dB and 53.4 dB during peak, intermittent events. This estimate is based on applying a 40 dB correction to the estimated exterior L_{max} noise levels to account for the noise reduction of the building walls. The study references Gypsum Association's "*Fire Resistance Design Manual and Sound Control: GA-600-2006*" as a source of this information. Our review of this document indicates it contains no such guidance. Furthermore, multiple sources indicate this assumption is unrealistic for wood-framed

residential structures. Commonly quoted noise reductions for residential wood-frame buildings are 20 to 25 dB of reduction. Sources that quote this exterior-to-interior reduction include the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013) and the FHWA *Highway Traffic Noise: Analysis and Abatement Guidance* (2011).

These documents indicate that exterior-to-interior noise reductions above 30 dB may be achieved with masonry walls, or buildings with curtain walls. Since many of the buildings close to the site are older wood-frame structures, a suitable assumption for their exterior-to-interior noise reduction is 20 dB. The actual interior noise levels are likely to be 20 dBA higher than stated in the Whitchurch report. Based on an assumed exterior-to-interior sound reduction of 20 dB, the interior noise levels will exceed the County's interior noise limit of 45 dBA CNEL for any scenario where the exterior level exceeds 65 dBA CNEL. Most of the mitigated scenarios presented in Table 8 of the Whitchurch report will therefore result in an exceedance of the interior noise limits.

Concert Assessment

The Whitchurch noise study addendum assesses the noise impact of concerts using reference concert sound level data as a basis. Concerts may begin between 6 pm and 7 pm, and end between 10 pm and 10:30 pm. The report indicates that unmitigated noise levels will significantly exceed the County's CNEL and Lmax noise standards for residential properties. The study proposes a combination of reduced concert durations, sound walls and concert sound monitoring to reduce noise levels at sensitive receptors. The study provides anticipated noise reductions due to the sound wall of between 18.2 and 21.6 dB. In our experience in designing acoustical barriers, reductions this high are rare. The actual reduction will be dependent on the frequency spectrum of the source, the source and barrier heights, and the distances from the source to the barrier and the barrier to the receptor. It is not clear how Whitchurch have calculated the expected barrier performance. However, we would recommend a full 3D sound modeling study to determine the actual barrier performance. This will enable noise maps to be produced showing how the sound will spread into the community and aid in the decision-making process.

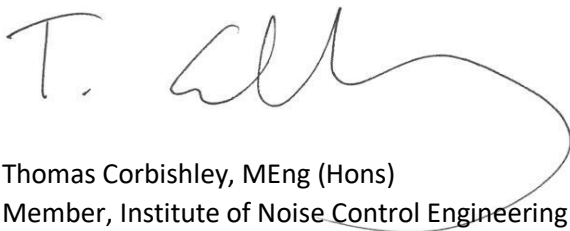
The issues with the assessment of concerts are broadly the same as those discussed above for motorsports events. The study indicates that even with a fully mitigated concert event, the noise levels will still exceed the County's CNEL noise standard of 60 dBA CNEL. The study does not address compliance with the County's Lmax noise standards (and in fact provides some evidence that this standard will be significantly exceeded). The study does not address concert noise levels relative to ambient sound levels (as noted above, ambient sound levels have not been adequately documented and a comprehensive assessment is not currently possible). The concert analysis again assumes an unrealistic exterior-to-interior noise reduction of 40 dBA, and is likely underestimating interior noise levels by about 20 dBA.

Summary

In summary, the Whitchurch noise study is deficient in multiple areas. These are:

- Ambient sound levels in the community have not been adequately documented. The ambient sound levels stated in the report are highly likely to have been overestimated due to unrealistic assumptions concerning noise made by traffic throughout the day. The report does not propose a threshold of significance, or assess motorsports noise or concert noise against existing ambient sound levels.
- The 'Less than significant impact with mitigation incorporated' declaration in the Initial Study and Proposed Mitigated Negative Declaration contradicts the analysis in the noise study, which shows that motorsports event and concert noise levels will exceed the County's General Plan CNEL noise standards. The noise study fails to properly analyze the motorsports event and concert Lmax noise levels. However, it provides enough evidence to indicate that the County's exterior Lmax noise standard will be significantly exceeded.
- The study fails to address the noise levels or the impacts produced by monster truck events or other possible motorsport events.
- The study makes unrealistic and unjustified assumptions concerning the exterior-to-interior noise reduction that will be achieved by the nearby residential structures. When this is corrected for, the data in the study indicates exceedances of the County's interior noise standards during both motorsports events and concerts.

Sincerely,



Thomas Corbishley, MEng (Hons)
Member, Institute of Noise Control Engineering
Principal Consultant

Curriculum Vitae

Thomas T. Corbishley

Position:	Principal Consultant, Noise Monitoring Services (2013-)
Prior Positions:	Environmental Noise Control (2009-2016) Engineering Manager Wieland Acoustics, Inc. (2006-2009) Associate Acoustical Consultant University of Southampton, UK (2006) Engineer Fluid & Acoustic, Ltd (2003-2004) Research Engineer
Education:	Institute of Sound and Vibration Research (ISVR), University of Southampton, UK Master of Engineering (MEng) in Acoustical Engineering Graduated with First Class Honors
Memberships:	Member, Institute of Noise Control Engineering (INCE)
Courses:	Advanced Analysis Course, Bruel & Kjaer SoundPLAN Computer Noise Modeling Course

Mr. Corbishley is an experienced engineer and project manager with 15 years of experience in the field of acoustical consulting. He has managed a wide variety of projects and led teams of acoustical engineers in producing numerous noise studies. As an engineer with a strong educational and theoretical background in acoustical principles, as well as extensive experience as a consultant, he brings effective project management and strong analytical and problem-solving skills to the projects.

Types of projects managed include long and short-term sound and vibration monitoring programs, EIR noise studies, new-build residential, commercial and office building noise studies, carwash noise studies, studies for hotels, restaurants and bars, interior noise criterion (NC) and reverberation assessments, OSHA noise assessments, water well drilling studies, oil & gas drilling, fracking and production facility studies, mechanical equipment noise certification, traffic and railroad noise studies, shooting range noise analyses, municipal code compliance assessments, blasting and mining noise studies and factory noise studies.

Recent Project Information

The following list provides examples of recent projects completed:

Edinger Bridge Construction, Huntington Beach, CA

Our services on this project include underwater (hydroacoustic) monitoring of noise levels during the installation of bridge piles during three construction phases. Noise levels were measured in accordance with FHWA guidelines. Our onsite personnel provided real-time noise level data to the County, as well as advice on mitigation measures (use of bubble curtains and the effect of water levels on noise).

Lemon Well Drilling, Bradbury, CA

Work included water well drilling noise modeling before construction to determine mitigation measures required to achieve compliance with the City's noise limits. Compliance measurements were performed during drilling.

Well 110 Replacement Project, Temecula, CA

Noise modeling was performed to determine mitigation measures required to achieve compliance with the Rancho California Water District noise limits.

Porsche Experience Center, Carson, CA

This long-term ongoing project requires noise monitoring of a new Porsche race track near Los Angeles. Currently, Phase 1 noise monitoring requires weekly site visits and monthly reporting of sound levels relative to the project's Conditions of Use. Future phases will include intensive, continuous monitoring as the surrounding areas are built up.

Don Pedro Reservoir Transmission Line Construction, Jamestown, CA

The project involved vibration monitoring adjacent to a reservoir during drilling for the construction of transmission lines crossing the water. Due to an existing underground pipe, the specifications required construction to be halted if vibration levels exceeded a pre-determined threshold. NMS wrote the monitoring plan and provided monitoring equipment that provided instantaneous vibration warnings.

Marine Pump Sound and Vibration Certification, Tustin, CA

Sound and tri-axial vibration testing of marine pumps and water separators to the requirements of the American Bureau of Shipping (ABS) Guide for Crew Habitability on Offshore Installations. The pumps were tested for the purpose of certification before their installation on shipping vessels. Full testing reports with documentation of test methodology and data were generated for various pieces of equipment.

Pile Driving Vibration Monitoring, Los Angeles International Airport, CA

This project involved the monitoring of vibration produced by ABI machines during the installation of shoring associated with the construction of the new Tom Bradley International Terminal at LAX. Both unattended and attended vibration monitoring services were provided for multiple contractors for the project.

Condo Vibration Assessment, Alhambra, CA

Project involved interior floor vibration measurements caused by a restaurant's kitchen extraction system fans. The vibration was assessed against the Federal Transit Administration's groundbourne vibration criteria before and after the installation of resilient mounts on the equipment.

Noise Analysis for Mixed-Use Development, Glendale, CA

An exterior-to-interior noise analysis was performed for a proposed mixed-use project in Glendale that included residential and commercial uses. Future estimated traffic noise was modeled at the site using three-dimensional noise modeling software. Construction recommendations were provided for the buildings, including the required Sound Transmission Class (STC) ratings for the windows and doors.

Cafe Reverberation Testing, Los Angeles, CA

Noise level and reverberation time testing inside a café to determine solutions to reduce the sound level of an extraction unit and specify the quantity of placement of acoustically absorptive material to install. Solutions to reduce noise levels were provided for the extractor and HVAC fans generating the noise and product and installation recommendations for sound absorptive panels.

Construction Noise Analysis for Riverbank Replacement, Los Angeles, CA

Work involved the prediction of noise levels during various phases of construction and design of noise mitigation measures to achieve the specified noise limits using three-dimensional noise modeling software. The work was performed for several individual project sites along the river.

Bolt Factory Noise Assessment, Carson, CA

Workplace noise assessment in a bolt factory. The project involved establishing worker locations where compliance with OSHA noise limits was not being achieved and designing mitigation measures to reduce noise exposure levels. Solutions were provided to reduce the noise generation at the sources and mitigate sound transmission paths with the use of acoustical enclosures, barriers and absorptive panels.

Pipeline Replacement Sound and Vibration Monitoring, Ventura County, CA

The work involved the production of a Noise and Vibration Control Plan with construction noise analysis and mitigation requirements for a horizontal directional drilling operation. Sound and vibration was monitored throughout the project and daily monitoring reports produced.

Pile Driving Vibration Monitoring, Hollywood, CA

Continuous vibration monitoring during soldier pile installation by a vibratory method using ABI machines. Vibration was monitored and assessed against the project specifications. Compliance was monitored in real time by a technician at the site and daily monitoring reports were provided to the client.

Sheet Pile Installation and Removal Vibration Monitoring, San Jose, CA

Vibration monitoring during the installation and removal of sheet piling for a grade separation project in San Jose. Monitoring was performed adjacent to residences by an on-site technician and data reports were provided daily to the client.

Construction Noise Monitoring during Water Tank Replacement, Beverly Hills, CA

Continuous noise monitoring during construction activities associated with the rebuilding of water tanks. Weekly monitoring reports were provided, which included an assessment of impact relative to the County of Los Angeles construction noise limits.

Oil Production Site Environmental Impact Report Noise Study, Hermosa Beach, CA

Environmental Impact Report (EIR) noise study for an urban oil production site in Hermosa Beach. The project involved computer modeling and analysis of noise for all construction, drilling and production phases and an assessment of traffic noise and vibration. Mitigation measures were designed to eliminate significant noise impacts and achieve local City ordinances and General Plan noise standards.

Noise Modeling of Gas Production Facilities, Queensland, Australia

Noise levels were modeled for three natural gas processing and compression facilities along a proposed pipeline route. The noise levels were predicted using SoundPLAN three-dimensional noise modeling software with noise levels based on manufacturer equipment data. Mitigation systems were designed to meet compliance with stringent noise limits at nearby residences under a variety of climate conditions.

Freeway Traffic Noise Assessment and Study Review, Santa Barbara, CA

Work involved reviewing a Caltrans freeway study to review sound wall recommendations on a section of freeway adjacent to residences. Noise measurements were obtained to determine the traffic noise levels at the residences and assess the adequacy of modeling assumptions.

Code Compliance Assessment for Industrial Facility, Lynwood, CA

Noise measurements were obtained for an industrial facility adjacent to a residential area where complaints about the facility's truck noise had been received. The measurements were made in order to verify whether noise citations had been correctly issued.